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AMENDED VERSION

IN THE CLAIMS:

1. (Twice Amended) A recombinantly conjugated protein for producing a dual immune response in a vertebrate, which fusion protein comprises:

a first proteinaceous portion analogous to all or part of a peptide of known structure and function endogenously synthesized within the vertebrate, the activity of which peptide is to be inhibited within the vertebrate, and which proteinaceous portion by itself is incapable of eliciting an effective immunoinhibitory response in said vertebrate; and

a second proteinaceous portion analogous to all or part of an immunogen from a pathogen, which the pathogen is capable of pathogenically infecting the vertebrate, recombinantly conjugated to said first proteinaceous portion, wherein said second proteinaceous portion causes the vertebrate's immune system to recognize said first proteinaceous portion and produces a response that:

(i) inhibits the activity of said peptide of known structure and function endogenously synthesized within the vertebrate;

(ii) protects the vertebrate from known infection caused by the pathogen, when the vertebrate is vaccinated with an effective amount of the recombinantly conjugated protein; and

(iii) synergistically affects said first proteinaceous portion by enhancing inhibition of the activity of the peptide that is analogous to said first proteinaceous portion.

3. (Twice Amended) A recombinantly conjugated protein for producing an immune response in a vertebrate, which recombinantly conjugated protein comprises:

a first proteinaceous portion analogous to all or part of a peptide of known structure and function, the activity of which is to be inhibited within

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the vertebrate, and which said first proteinaceous portion by itself is incapable of eliciting an effective immunoinhibitory response in the vertebrate; and

a second proteinaceous portion analogous to all or part of a BHV-1 antigen recombinantly conjugated to said first proteinaceous portion, wherein, said second proteinaceous portion causes the vertebrate's immune system to recognize said first proteinaceous portion, produces an immune response capable of inhibiting the activity of said peptide within the vertebrate when the vertebrate is vaccinated with an effective amount of the fusion protein, and synergistically affects said first proteinaceous portion by enhancing inhibition of the activity of the peptide that is analogous to said first proteinaceous portion.

11. (Twice Amended) A dual-function vaccine which comprises a recombinantly conjugated protein according to claim 1, a vector according to claim 7, or a transformed cell according to claim 10, in an amount effective to inhibit the activity of the peptide of known structure and function from which a first proteinaceous portion recombinantly conjugated protein is derived; to protect against known infection caused by the pathogen from which a second proteinaceous portion of the recombinantly conjugated protein is derived; and a carrier acceptable for pharmaceutical or veterinary use.